

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

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11. Okt. 2006

eingegangen/received

Date of mailing (day/month/year)

05 October 2006 (05.10.2006)

Applicant's or agent's file reference

P20713W0 EP

IMPORTANT NOTIFICATION

International application No.

PCT/EP2004/052097

International filing date (day/month/year)

09 September 2004 (09.09.2004)

Applicant

ALUMINAL OBERFLÄCHENTECHNIK GMBH & CO. KG et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P20713WO	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/052097	International filing date (day/month/year) 09.09.2004	Priority date (day/month/year) 18.10.2003
International Patent Classification (IPC) or national classification and IPC C25D5/12, C25D5/36, C25D3/56		
Applicant ALUMINAL OBERFLÄCHENTECHNIK GMBH & CO. KG		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:	
<input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/052097

Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-11 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1-16 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/052097

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-16	YES
	Claims		NO
Inventive step (IS)	Claims	1-16	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. Disclosures:

This report refers to the following documents (D) cited in the search report; the numbering will be retained throughout the proceedings:

- D1: WO 02/088434 A (ALUMIPLATE INCORPORATED; FISCHER, JUERGEN, K., S) 7 November 2002 (2002-11-07)
- D2: EP-A-1141447 (MEHLER KLAUS DIETER; STUDIENGESELLSCHAFT KOHLE MBH (DE); LEHMKUHL) 03 July 2002 & WO 00/32847 A (MEHLER KLAUS DIETER; STUDIENGESELLSCHAFT KOHLE MBH (DE); LEHMKUHL) 8 June 2000
- D3: LANDAU U ET AL: "ALUMINIUM, ALUMINIUM-MAGNESIUMLEGIERUNGEN UND WEISSE BRONZE GALVANOTECHNISCH ABGESCHIEDENE WERKSTOFFE MIT INTERESSANTEN GEBRACHSEIGENSCHAFTEN ALUMINIUM" ERZMETALL, RIEDERER VERLAG GMBH. STUTTGART, DE, Vol. 54, No. 7/8, September 2001 (2001-09), pages 369-380, XP001043704 ISSN: 0044-2658
- D4: US-A-4 778 575 (MAYER ET AL) 18 October 1988

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International application No.

PCT/EP2004/052097

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>(1988-10-18)</p> <p>D5: EP-A-1 279 751 (ALUMINAL OBERFLAECHTECHNIK) 29 January 2003</p> <p>D6: DE 31 12 919 A (SIEMENS AG) 7 October 1982 (1982-10-07)</p> <p>D7: DE-A-3804303 (STUDIENGESELLSCHAFT KOHLE MBH) 24 August 1989 & EP-A-0 328 128</p> <p>1.1. Document D1 discloses a workpiece which is made of steel and is coated with aluminium or with an aluminium-magnesium alloy. D1 also discloses pre-treatment, in which a nickel layer can be applied to the substrate. This is used to degrease and clean the substrate. It is unclear whether that layer is still present following the additional pre-treatment steps. The coating is galvanic (pages 2-5, 6, 8-10).</p> <p>1.2. Documents D2 to D5 each disclose a workpiece which is made of steel and is coated with aluminium or with an aluminium-magnesium alloy, but without any intermediate layer. The coating is galvanic (D2: abstract, claims 1-3, 12-15; D3: page 375; D4: D5: abstract, paragraph [0022]).</p> <p>1.3. Document D6 discloses a workpiece which is made of steel and is coated with aluminium, with an intermediate layer of cobalt or a cobalt alloy. The coatings are galvanic (drawing; claims 1-4).</p> <p>1.4. Document D7 discloses a workpiece which is made of steel and is coated with aluminium, with an</p>

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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	<p>intermediate layer of iron, nickel, copper or cobalt, or alloys thereof, or a tin-nickel alloy. The coatings are galvanic (abstract, claims 1, 7, 9).</p>
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2. Novelty:

The present application meets the requirements of PCT Article 33(1) because the subject matter of claims 1 to 16 is novel (PCT Article 33(2)).

3. Inventive step:

3.1. Document D1 cannot be used to argue against inventive step, since the nickel coating solves a different problem and is not an intermediate layer.

3.2. Document D2, which is regarded as the closest prior art, discloses a coated workpiece, from which the subject matter of claim 1 differs in that an intermediate layer is applied.

The current invention can therefore be considered to address the problem of protecting the workpiece from corrosion using a layer that bonds well.

That problem is solved by the application of an intermediate layer.

A person skilled in the art wishing to apply a **more solid alloy**, more particularly an Al/Mg

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

alloy, would not find the information pertaining to an intermediate layer in either D6 or D7, in which, regarding material properties, a soft galvano-aluminium coating is better applied to a steel substrate by means of an intermediate layer. In addition, there is nothing to indicate to a person skilled in the art that simply the additional use of a metallic intermediate layer would alter the relatively large degree of hardness of an Al/Mg layer applied thereon such that the entire coating would have significantly greater elasticity, thereby also increasing resistance to corrosion.

The subject matter of all the claims thus involves an inventive step (PCT Article 33(3)) and therefore the requirements of PCT Article 33(1) are satisfied.

- 3.3. D3 to D5 cannot be considered the closest prior art and be combined with D6 or D7 anymore than D2.